



February 23, 2011

Garry Rhodes
Building Commissioner
Office of Community Development
1625 Massachusetts Avenue
Lexington, MA 02420

Subject: Proxy Location and Ambient Survey
LTP Ambient Sound Level Assessment Protocol Review
Lexington, MA
Acentech Project No.: 620746

Dear Garry:

We have reviewed the letter Greg Tocci produced on February 10, 2011, which proposed a proxy location for performing an ambient survey. As his letter suggests, this site is proposed to be an alternate location where a sound level measurement could be made to compare with the ambient sound levels for the Lexington Technology Park. Our feedback about this idea is provided below.

The proposed proxy location is along Old Colony Road on the western side of Route 128 and southern side of Route 2. This places the proxy location at a position that is nearly perfectly mirrored from the location of the Shade Street and LTP property lines in relationship to these two roadways. As Greg notes, the geometric similarity is seemingly advantageous, because the relative distance of this location from Shire is dramatically increased, reducing the effect of Shire activities on the sound levels at this location. At the same time, the relative distance of this site from the roadways remains similar to the ambient sound level locations, which ideally would be comparable to the Shade Street location.

However, while geometrical similarities exist, we are concerned that there are other differences that could result in lower ambient sound levels at the Old Colony Road location compared with the Shade Street ambient sound levels. As Greg noted in his letter, the Old Colony Road location may have more ground effect due to the extensive vegetation, which tends to reduce the propagating sound levels from the highway. The topography may also play a factor in having lower sound levels, given that Old Colony Road is lower than Shade Street and may be somewhat shielded from the highways. In addition, prevailing winds (from the west) will tend to reduce the sound levels from the highway, when winds of over 5 to 10 mph occur. These factors concern us as they may lead to results that are not comparable to or representative of the measured sound levels along Shade Street.

Michael Bahtarian of Noise Control Engineering (Patriot Partner's acoustical consultant) and I had studied this question extensively at this time last year, trying to arrive at an acceptable option for such a measurement. Unfortunately, we found, as Greg has indicated, that the idea of using a proxy location for this site is very difficult given the unique conditions that exist around

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the LTP. For these reasons, we do not believe that a long term survey at this Old Colony Road location will be helpful for the confirming the ambient sound levels at the Shade Street and LTP property lines.

Please feel free to call if you have questions about this information; my direct number is 617-499-8058.

Sincerely,

ACENTECH INCORPORATED



Jeffrey L. Fullerton, INCE Bd. Cert., LEED AP
Director, Architectural Acoustics Group

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